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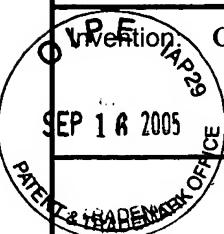
Docket No.

2002JP311

Serial No.
10/519,242Filing Date
December 22, 2004Examiner
WU, Ives J.Group Art Unit
1713

COMPOSITION FOR ANTIREFLECTIVE COATING AND METHOD FOR FORMING SAME

SEP 16 2005

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PATENT ABSTRACTS OF JAPAN

(11)Publication number : 10-301268

(43)Date of publication of application : 13.11.1998

(51)Int.CI. G03F 7/004

G03F 7/039

H01L 21/027

(21)Application number : 09-126278 (71)Applicant : NEC CORP

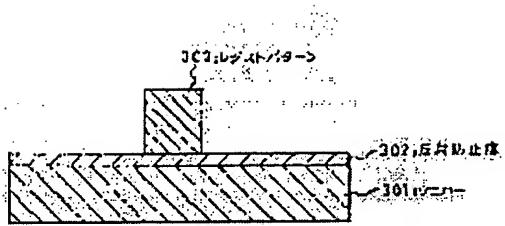
(22)Date of filing : 30.04.1997 (72)Inventor : ITANI TOSHIRO

(54) REFLECTION PREVENTING FILM MATERIAL

(57)Abstract:

PROBLEM TO BE SOLVED: To prevent contraction or trailing of a resist pattern on a reflection preventing film which is peculiar to a chemically amplifying resist, by adding one of or both of an acid compd. and a basic compd. to the antireflection film.

SOLUTION: An acid compd. or a basic compd., or both of these are added to a reflection preventing film material consisting of a crosslinking agent and a solvent, and the addition is controlled according to the acidity of a chemically amplifying resist to be used on the reflection preventing film, namely, according to the acidity of the acid produced from a photoacid producing agent. Thereby, the contraction and trailing of a resist pattern can be prevented. This is because the acidity is controlled to be almost same on the interface between the resist film 303 and the antireflection film 302 so that the deblocking reaction of the positive resist does not proceed on the interface between the resist film 303 and the reflection preventing film 302. Moreover, no excess changes in the compsn. is required to the resist material, the gradient of solubility characteristics which largely influence the resist resolution can be maintained large, and higher resolution can be obtd.



LEGAL STATUS [Date of request for examination] 30.04.1997

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number] 3031287

[Date of registration] 10.02.2000

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right] 18.07.2001